

CLAIMS

We claim as our invention:

1. A method comprising:
configuring a network interface of a client computer to communicate only with a fix server that can supply a software fix to the client computer; and
receiving from the fix server the software fix, wherein the client computer communicates only with the fix server when a determination is made that the client computer has not previously received the software fix.
2. The method of claim 1, wherein the software fix is automatically forced on the client computer to be received and applied on the client computer without a user intervention.
3. The method of claim 2, wherein the software fix is received in a broadcasted packet from the fix server.
4. The method of claim 1, further comprising:
waking up the client computer with a Wake-On-LAN (WOL) signal, the WOL signal being included in a packet from the fix server, the packet from the fix server including the address of the fix server.
5. The method of claim 1, wherein the method is under the control of an agent in the client computer.
6. The method of claim 1, further comprising:
re-booting the client computer after installing the software fix; and
reconnecting the client computer to a network in a full access mode.

7. The method of claim 1, further comprising:
upon receiving the software fix from the fix server,
re-booting the client computer using a secondary operating system in the client computer.
8. The method of claim 1, further comprising:
utilizing a service processor in the client computer to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.
9. The method of claim 1, further comprising:
determining whether the client computer has any of a virtual machine manager, a primary operating system, a secondary operating system, and a service processor, and upon said determination,
utilizing the virtual machine manager to control the network interface if the client computer has a virtual machine manager, or else
utilizing the service processor to control the network interface if the client computer has a service processor, or else
utilizing the secondary operating system to control the network interface if the client computer has a secondary operating system, or else
utilizing the primary operating system to control the network interface.

10. A client computer comprising:
 - a fix detector which discerns an offer for a software fix from a fix server;
 - an isolator which is operatively coupled to said fix detector and which controls a network interface to only communicate with the fix server upon a receipt of the offered software fix;
 - a downloader which is operatively coupled to said isolator and which transfers the software fix from the fix server; and
 - a boot strap which is operatively coupled to said downloader and which reboots the client computer after the software fix has been downloaded and executed; wherein the client computer is reconnected to a network without restrictions after the software fix is loaded and executed in the client computer.
11. The client computer of claim 10, wherein said isolator utilizes a primary operating system.
12. The client computer of claim 10, wherein said isolator utilizes a secondary operating system, wherein upon receipt of the offered software fix, the client computer re-boots using the secondary operating system.
13. The client computer of claim 10, wherein said isolator is a service processor.

14. The client computer of claim 10, further comprising a switch which is operatively coupled to said fix detector and which determines whether the client computer has a capability of controlling the network interface using any of a virtual machine monitor, a primary operating system, a secondary operating system, and a service processor, and upon making the determination, utilizing the virtual machine monitor if available, or else utilizing the service processor if the virtual machine manager is not available, or else utilizing the secondary operating system if the service processor is not available, or else utilizing the primary operating system if the secondary operating system is not available, to control the network interface.

15. The client computer of claim 13, wherein the service processor includes an agent for detecting the offer for the software fix.

16. The client computer of claim 10, wherein said boot strap pre-boots the client computer using a secondary operating system to download and execute the software fix.

17. The client computer of claim 10, wherein the software fix is an anti-virus software program.

18. A fix server comprising:

a network interface for transmitting an offer for a software fix and the software fix; and

a memory for storing a list of client computers, the list including a description of whether each client computer on the list has received the software fix.

19. The fix server of claim 18, wherein the software fix is an anti-virus program.

20. A method comprising:
configuring a network interface of a client computer to communicate only with a fix server that can supply a software fix to the client computer; and
receiving from the fix server the software fix, wherein the client computer communicates only with the fix server when a determination is made that the client computer has not previously received the software fix;
wherein said configuration and said reception are performed by a virtual machine manager in the client computer.
21. The method of claim 20, wherein at least a portion of the virtual machine manager is implemented in hardware.
22. The method of claim 20, further comprising:
upon receiving the software fix from the fix server,
executing the software fix directly from the virtual machine manager.
23. The method of claim 20, further comprising:
upon receiving the software fix from the fix server,
executing the software fix using a virtual machine in the client computer, wherein the virtual machine is created by the virtual machine manager.
24. The method of claim 20, further comprising:
utilizing the virtual machine manager in the client computer to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.
25. The method of claim 20, further comprising:
re-booting the client computer after installing the software fix; and
reconnecting the client computer to a network in a full access mode.

26. Apparatus comprising:
a memory;
a network interface; and
a processor which couples said memory and said network interface and is effective when executing code stored in said memory to establish a virtual machine manager which virtualizes the hardware interface of at least said network interface; wherein the virtual machine manager established by said processor is effective to:
configure said network interface to communicate only with a fix server that can supply a software fix; and
receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received.
27. Apparatus of claim 26, wherein the software fix is executed directly by the virtual machine manager in response to the reception of the software fix from the fix server.
28. Apparatus of claim 26, wherein the virtual machine manager initiates a virtual machine instance and wherein the software fix is executed by the virtual machine instance in response to the reception of the software fix from the fix server.
29. Apparatus of claim 26, wherein the virtual machine manager is further effective to reconfigure a Network Interface Card (NIC) driver, wherein the NIC is configured to communicate only with the fix server to receive the software fix.
30. Apparatus of claim 26, wherein the virtual machine manager is further effective to:
re-boot the client computer after installing the software fix; and
reconnect the client computer to a network in a full access mode.

31. Apparatus comprising:
a memory;
a network interface; and
a processor which couples said memory and said network interface and is effective to establish a virtual machine manager which virtualizes the hardware interface of at least said network interface;
wherein the virtual machine manager established by said processor is effective in executing code stored in said memory to:
 configure said network interface to communicate only with a fix server that can supply a software fix by applying a filter to software associated with said network interface;
 receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received;
 initiate a virtual machine instance wherein the software fix is executed by the virtual machine instance in response to the reception of the software fix from the fix server;
 re-boot the client computer after installing the software fix; and
 reconnect the client computer to a network in a full access mode.
32. The method of claim 31 , wherein at least a portion of the virtual machine manager is implemented in hardware.

33. A product comprising:
a computer usable medium having computer readable program code stored therein, the computer readable program code in said product being effective to:
configure said network interface to communicate only with a fix server that can supply a software fix; and
receive from the fix server the software fix, wherein communication only occurs with the fix server when a determination is made that a software fix has not been previously received.